

REMARKS

Claims 1-3 and 5-12 are pending in this application. By this Amendment, claims 1 and 3 are amended, and claim 4 is canceled. No new matter is added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

The Office Action rejects claims 1, 3-7, and 10-12 under 35 U.S.C. §102(b) as being anticipated by Summerfelt (U.S. Patent No. 6,117,689); rejects claim 2 under 35 U.S.C. §103(a) as being unpatentable over Summerfelt in view of Norga (U.S. Patent No. 6,545,856); and rejects claims 8-9 under 35 U.S.C. §103(a) as being unpatentable over Summerfelt in view of Basceri (U.S. Patent No. 6,534,357). Applicants respectfully traverse these rejections.

Specifically, Applicants assert that neither Summerfelt, Norga, nor Basceri disclose or suggest, individually or in combination, a method of manufacturing an electrode over a substrate, the method including at least the steps of forming initial crystal nuclei of an electrode material over the substrate in an island pattern by using a sputtering method, and forming grown layers of the electrode material by causing the initial crystal nuclei to be grown by using an evaporation method, as recited in independent claims 1 and 3.

Summerfelt discloses a method of forming an oxygen diffusion resistant electrode including the steps of using the same sputter deposition method for forming thin and thick Pt layers. Accordingly, Summerfelt does not disclose a method of manufacturing an electrode over a substrate, the method including at least the steps of forming initial crystal nuclei of an electrode material over the substrate in an island pattern by using a *sputtering method*, and forming grown layers of the electrode material by causing the initial crystal nuclei to be grown by using an *evaporation method*.

Norga discloses a method of growing a PZT layer on a bottom electrode by sol-gel, sputter, or CVD deposition techniques. Accordingly, Norga also fails to disclose a method of

manufacturing an electrode over a substrate, the method including at least the steps of forming initial crystal nuclei of an electrode material over the substrate in an island pattern by using a *sputtering method*, and forming grown layers of the electrode material by causing the initial crystal nuclei to be grown by using an *evaporation method*.

Basceri discloses a method for use in fabrication of integrated circuits including providing a substrate assembly including an oxygen-containing surface portion, forming a first metal layer on portion of the oxygen-containing surface portion, and forming a second metal layer on at least a portion of the first metal layer, and forming an oxidation diffusion barrier layer on at least a portion of the second metal layer. Accordingly, Basceri also fails to disclose at least the aforementioned features of independent claims 1 and 3, and therefore, does not make up for the deficiencies of Summerfelt or Norga.

Accordingly, Applicants respectfully assert that neither Summerfelt, Norga, nor Basceri disclose or suggest, individually or in combination, a method of manufacturing an electrode over a substrate, the method including at least the steps of forming initial crystal nuclei of an electrode material over the substrate in an island pattern by using a *sputtering method*, and forming grown layers of the electrode material by causing the initial crystal nuclei to be grown by using an *evaporation method*.

In accordance with the above remarks, Applicants submit that independent claims 1 and 3 define patentable subject matter. Claims 2 and 5-12 depend from claim 1, and therefore, also define patentable subject matter. Thus, Applicants respectfully request that the Examiner withdraw the §102(b) and §103(a) rejections.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-3 and 5-12 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachments:

Petition for Extension of Time

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